Objectives

- Practice using JavaScript iteration, conditionals, custom functions, error handling, function scope.
- Continue practice using the FireFox development tools, including Scratchpad editor, Debugger and Console.

Problem 1

Move statements in Calculation 1 and Calculation 3 from Lab 01 into two custom JavaScript functions. Augment all calculations within each function to test for and handle errors, as outlined below. Test each function.

Calculation 1:

- Create a function called `calc1()`
- Prompt the user for 'a' and 'b' value in separate while loops
- Validate the values of 'a' and 'b' entered by the user:
  - If the user clicks [Cancel] return from the function immediately.
  - If an entered value is `NaN`, display an `alert()` describing the error, jump back to the top of the while loop, and prompt again.
  - If an entered value is negative, display an `alert()` describing the error and prompt again.
- After both entered values pass all required tests, perform calculation and display result as in Lab 01.

Calculation 3:

- Create a function called `calc3()`
- Prompt the user for a comma-delimited string in a while loop
- Validate the comma-delimited string entered by the user:
  - If the user clicks [Cancel] return from the function immediately.
  - If after splitting the string on '`,`' there is only one element in the resulting array, display an `alert()` indicating that two or more values must be entered
  - On any error, prompt again.
- After the value passes all required tests, perform calculation and display result as in Lab 01.

Problem 2

Write a function called `makeCounter()` that declares and returns two new functions named `addCount(n)` and `getCount()`. `addCount(n)` adds `n` to a total shared count variable and `getCount()` returns the current total count. These functions should be returned from `makeCounter()` as part of an object.

You may NOT use a global `count` variable. Use a variable in a shared scope of the scope chain.
Following is an outline for Problem 2.

```
// Factory function
var makeCounter = function() {


  // Add code here


}
```

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```
// Tests
var counter = makeCounter();
console.log( counter.getCount() );  // 0
counter.addCount(1);
console.log( counter.getCount() );  // 1
counter.addCount(2);
console.log( counter.getCount() );  // 3
```

Finishing Up

- You MUST enter header comments into you JavaScript file including (1) File name, (2) Your name, (3) Description and or purpose of the assignment
- You MUST comment you code, explaining what you did in each section
- Submit the single JavaScript file using Canvas under the appropriate assignment name

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